WASHINGTON HIGHER EDUCATION COORDINATING BOARD



Opportunities for Change Implementing the 2008 Strategic Master Plan

HECB/Advisory Council Discussion October 28, 2008

Preliminary Draft for Discussion

Opportunities for Change

Implementing the 2008 Strategic Master Plan

Table of Contents

Section I	Introduction and Background I		
Section II	Priorities of the Implementation Plan6		
Section III	Key Findings and Recommendations of the Work Groups8		
	- Economic Needs Assessment Work Group9		
	- Policy and Demographics Work Group14		
	- Enrollment and Capacity Analysis Study24		
Section IV	Aligning Resources to Raise Educational Attainment29		
Section V	Creating a 10-Year Action Plan: Focus and Emphasis31		

I. Introduction and Background

Earlier this year, the Higher Education Coordinating Board completed, and the Legislature endorsed, a 10-year Strategic Master Plan for Higher Education that called for the state and its higher education institutions to adopt a new imperative to raise educational attainment among our citizens.

- The plan called for **increasing degree and certificate attainment** by more than 40 percent annually by 2018 to meet the state's economic needs and strengthen our society.
- It recommended policies and strategies to **promote economic growth and innovation**.
- And it called for a **new emphasis on accountability** to monitor and fund higher education for results.

After the Legislature approved the Strategic Master Plan, it directed the HECB to develop an action plan to inform policy and funding decisions for the 2009-2011 biennium and subsequent biennia. The action plan was to address the following concerns:

- How the plan's degree goals would align with state workforce needs in the next decade;
- Assess costs, adopt industry best practices;
- Determine ways to increase access; and
- Consider system and program capacity to meet workforce needs.

Raising educational attainment

The central objective of the Strategic Master Plan is to increase the number of degrees and certificates produced annually by 2018. The other major goals of promoting economic vitality and funding for results will be met, to a great extent, by achieving this central objective. Therefore, this action plan focuses primarily on strategies to achieve the central goal.

Significantly increasing educational attainment won't be easy. Rates of participation and success will have to increase quickly among K-12 students, especially those who are under-represented in higher education. These include students from families with very low incomes and under-represented ethnic and racial groups.

Many more young adult workers also will have to enter or re-enter the postsecondary education system to meet the degree and certificate goals of the master plan. And many more currently enrolled students will need to complete their studies sooner.

This action plan provides a conservative but deliberate pathway to raise educational attainment. It proposes we maintain funding stability in higher education during the next two biennia as a way of preserving progress. And it recommends incremental steps to develop demand and capacity needed to move the blue arrow of educational attainment up.

Four central priorities

This new approach centers on four main priorities:

Central Priorities of the 10-year Action Plan

- 1. *Focus first on students* by supporting programs to build a larger pipeline to postsecondary education.
- 2. *Preserve progress* by sustaining current levels of support to ensure a stable foundation for future improvement.
- 3. *Expand on demand* by prioritizing existing institutional growth plans and targeting modest new expenditures to meet specific regional and program development needs.
- 4. **Redesign the delivery system** by developing a new process to determine when and where to build new campuses, expand programs, or alter institutional missions.

To summarize, ensuring stable funding during the next two biennia will keep the state from slipping back at a time when it needs to move aggressively forward. It also will provide the foundation for a statewide effort to enlarge the student pipeline through expanded early outreach programs, improved teacher preparation, increased financial assistance, and other measures to support student success.

As more of these students begin to emerge from the expanded pipeline, the state can then begin to fund the increased enrollment they will generate in the subsequent three biennia. Modest initial investments in institutional facilities, programs, and capacity focused on baccalaureate degree production and under-served regions will help keep institutions on track in developing the capacity to reach the new degree goals. The state also will develop a new process to guide future capacity expansion.

Here are the reasons we should not back away from this commitment:

Education is the key to success in the global economy

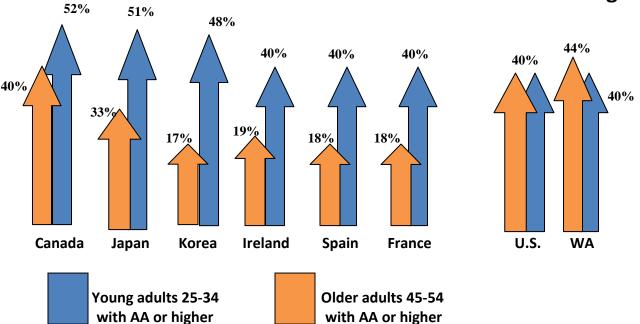
Washington needs to educate many thousands more Washingtonians to higher levels, not just to secure our future in the global economy, but because it is the right thing to do and not doing it may imperil our state's future.

The developed nations of the world are achieving record levels of education among their young adults while the United States and Washington are standing still. Washington can no longer wait to begin moving the blue arrow of educational attainment up. We must act now.

This action plan charts the course for immediate progress at the state and community level by leveraging the success of existing student outreach programs and making modest investments in new ones. Higher education institutions can no longer wait for well-prepared students to arrive at their doors. They need to lead the improvement effort.

Other developed nations know educating the next generation is essential to economic success...

...but the U.S. and Washington are standing still.



Workforce development needs

More than a million young working adults in Washington lack basic education, language skills and employment training and are trapped in low-wage, dead-end jobs. Worse, they lack a life plan for progress. This plan recommends specific action to reverse these trends.

Far too many students who do enroll in higher education find it difficult to complete their studies in a timely manner. Fewer than x percent of those who enroll in the community and technical colleges stating they want to earn a bachelor's or advanced degree actually do so. There are many reasons why this occurs. This plan contains strategies to address them.

Meanwhile, many businesses say they are having trouble attracting qualified workers — individuals who possess basic math and problem-solving skills, good interpersonal skills, critical thinking, leadership and management potential. This action plan provides further evidence that a shortfall of educated workers does exist in specific fields and proposes ways to address it.

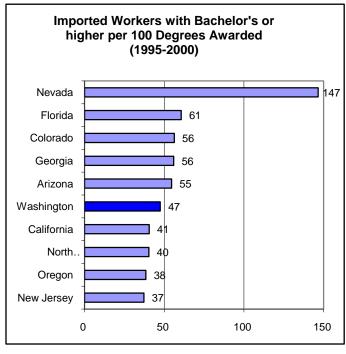
Washington workforce facts:

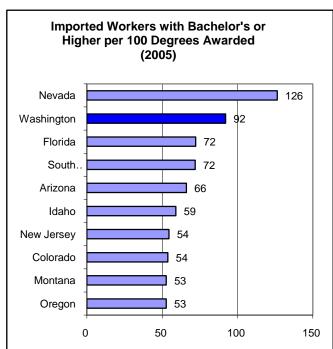
- One out of every four Washington citizens 18 to 24 does not have a high school diploma.
- More than 34 percent of Washington residents 18 to 64 have only a high school diploma.
- The number of Washingtonians who lack postsecondary education is equal to the next 10 high school graduating classes.

Why importing knowledge workers won't work

Washington is facing a brain drain of unprecedented proportion. Members of the baby boom generation – the most educated generation in history – will start retiring this decade and need to be replaced.

Net In-Migration of Workers with a Bachelor's Degree or Higher 1995-2000 and 2005





At the same time, we will continue to experience pressure from employers throughout the state to increase the number of educated workers. For example, Washington is number one in the nation in the percentage of our workforce holding jobs in technology – and this percentage is expected to increase.

Who will replace the baby boomers? Who will fill the new technology jobs? Washington citizens won't if present trends continue. With a 30 percent average high school dropout rate and some of the country's lowest levels of bachelor and advanced degree attainment among 18 to 24-year-olds, Washington can't count on generating enough educated citizens to meet current demand, yet alone future growth in demand.

Even more distressing, Washington continues to cede more and more of its best jobs to imported knowledge workers. Our over-reliance on importing educated workers will become increasingly evident as worldwide competition for these individuals increases. Importing knowledge workers does not represent a viable end-game strategy.

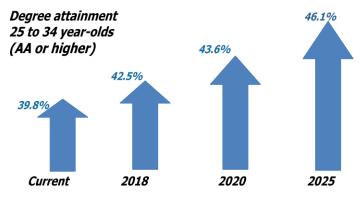
It's time to begin developing our own human potential. Washingtonians need and deserve the chance to compete for the best jobs our state has to offer. This plan provides a way to help them obtain these jobs.

Stable funding or a perfect storm?

Finally, if we do not address these challenges, the necessary conditions will exist to produce a perfect storm – a downward spiral in economic vitality and a corresponding rise in societal discord that will require even more state resources to offset at a time when revenues are shrinking. We can't afford to let this happen.

In other times of declining revenues, the state has chosen to cut funding for its higher education institutions – a practice that must not be employed this biennium if we are serious about achieving the goals outlined in the Strategic Master Plan and if we are serious about securing our state's economic and societal progress.

Move Washington's blue arrow up



Washington can continue to achieve significant results in degree attainment by funding new enrollments and systemic improvement.

II. Priorities of the Implementation Plan

How the implementation plan was developed

This action plan is built on the analysis and recommendations of three work groups convened by the HECB to determine how best to meet the Legislature's directive to implement the Strategic Master Plan. These groups and their assignments were as follows:

- **Economic Needs Assessment**. Determine what level of additional degree production Washington's economy would require between 2008 and 2018.
- **Policy and Demographic Analysis**. Assess how future state demographics will affect the 'supply' of future postsecondary students.
- Institutional Capacity and Growth Estimates. An analysis of the relations and costs (operating and capital) of institutional enrollment and degree award plans compared to the degree goals of the strategic master plan...and how technology can contribute to meeting those goals.

Three Statewide Work Groups Addressed the Challenge of Increasing the Level of Degree Attainment

Economic Needs Assessment

Assemble Pertinent Existing State Economic Research

Revisit Assumptions of Previous Research on Areas of Future Job Growth & Degree Needs

Develop More Precise Estimates of the Cost/Benefit of Funding Additional Enrollment

Policy and Demographic Analysis

Identify Target Populations

Analyze Participation Patterns

Identify Barriers

Establish Participation Goals and Strategies

Prepare Draft Legislative Concept Agenda

Institutional Capacity and Growth Estimates

Determine Existing, Near-Term Enrollment, Space, Technology Capacity

> Combine Institutional Projections into Statelevel, 10-year Projection

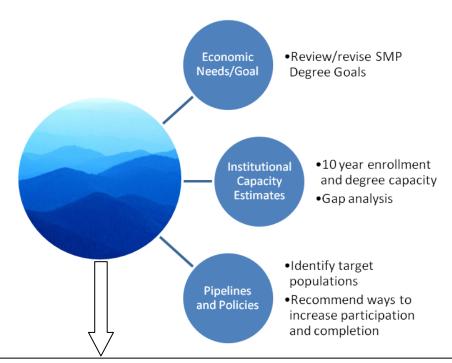
Develop Operating & Capital Cost Estimates

The work groups reached several fundamental conclusions. Their findings and recommendations are presented in greater detail in Section III.

- Washington must increase the level of postsecondary attainment to meet the economic needs of the state, and to remain competitive in the national and global economy.
- > Changes in population demographics will require higher levels of participation in postsecondary education by currently under-represented groups and working adults.

- Institutional and system plans for enrollment and degree awards growth must be "timed" or planned on the basis of increased demand, and such plans may require more than a 10-year planning horizon.
- A new policy that provides for orderly growth and planning on the basis of real demand and aligned system configuration is needed.

From the convergence of the findings and observations of these independent, but related studies, the Implementation Plan follows from four central priorities.



Central Priorities of the 10-year Action Plan

- 1. Focus first on students by fully developing programs to build a larger pipeline to postsecondary education.
- 2. *Preserve progress* by sustaining current levels of support to ensure a stable foundation for future improvement and phasing investment over five biennia.
- 3. *Expand on demand* by prioritizing existing institutional growth plans and targeting modest new expenditures to meet specific regional and program development needs.
- 4. *Redesign the delivery system* by developing a process to determine when and where to build new campuses, expand programs, or alter institutional missions.

III. Findings and Recommendations of the Work Groups

Summary Conclusions

To develop the strategies and action plan needed to raise educational attainment, the three work groups assessed the needs, priorities and resource requirements related to their assignment.

Economic Needs Assessment Work Group

This work group concluded that, to meet future workforce needs, the state's postsecondary institutions will need to increase the number of degrees and certificates being produced annually by more than 40 percent by 2018. Specific emphasis on baccalaureate degree production and high demand degree development is needed, the study indicated.

> Policy and Demographics Work Group

This work group affirmed that the state will not be able to meet its degree goals unless many more low-income and under-represented students participate and succeed in higher education. The group recommended investment in a broad array of programs and strategies to improve preparation, participation, and success among these groups.

➤ Analysis of Institutional Enrollment and Degree Plans, Capacity and Technology

This study concluded that institutional plans for enrollment and degree awards and the use of instructional technology will contribute significantly to the master plan's 10-year degree and enrollment goals. However, a relatively small gap between these plans and the goals exists. Therefore a 15-year enrollment planning period for new enrollments may be more realistic in view of the student demographic (pipeline) changes and state funding capacity. This analysis also projected future capital and operating costs.

> Economic Needs Assessment Work Group

In July 2008, Ann Daley, Executive Director of the Washington Higher Education Coordinating Board, convened a special ad-hoc work group to respond to questions by the State Legislature about whether our economy would require the level of additional degree production called for in the 2008 Strategic Master Plan for Higher Education.

Daley also asked the work group to identify the costs and risks to Washingtonians of failing to meet employer demand for skills and associated credentials, and to identify high demand occupations and strategies for meeting employer demand in the future.

Co-chairing the work group were Lee Huntsman, Executive Director of the Life Sciences Discovery Fund, and Steve Van Ausdle, President of Walla Walla Community College and a member of the Washington Economic Development Commission.

Members of the work group included executives and senior leadership from business and industry, labor, academia, and state and regional planning agencies. A list of the work group members and their affiliations is attached. The work group has created smaller study groups to review data and publications and develop sections of the report.

Major findings of the work group:

- While Washington's higher education institutions have been, and remain vital contributors to our state's economic success, our economy has increasingly relied on our ability to attract specialized talent to the state. There are compelling reasons to conclude that we cannot sustain this going forward, and that we must adopt a "grow your own" strategy to ensure an innovative, high-wage economy.
- Quantifying the gap between current supply and forecast demand for degrees and certificates is a complex problem. Given our need to make long-term forecasts, our best available data and methods only allow us to make a "ballpark" estimate of supply-demand gaps. We can and should work to improve our analysis capabilities.
- > The gap between current supply and 2018 demand appears to be so much higher than current degree production, it makes sense to immediately begin increasing capacity at all levels (mid-level, baccalaureate, and graduate/professional).
- > The state's investment in the expansion of high demand programs of study must be sustained and enhanced, along with efforts to improve the pipeline of interested and prepared students.

Washington's economic future

Washington's economy has undergone major structural changes in the last 20 years, driven by the strengthening of the technology sectors and expanding global connections. While we have developed a well-educated and technically-skilled workforce, we have also become dependent on specialized talent. Washington's economic success has been built around several major attributes:

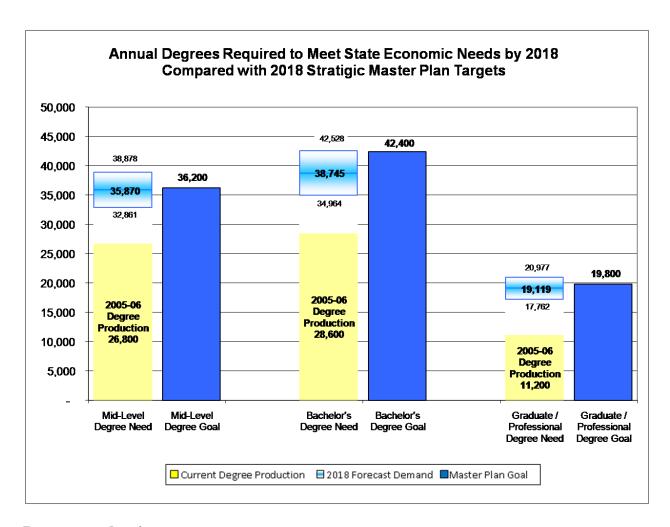
- Strong, globally competitive core industries and Fortune 500 firms, such as Weyerhaeuser and Boeing, and later retail (Costco, Nordstrom, Amazon.com, Starbucks), information technology (Microsoft), and biotechnology/biomedical devices.
- A strong research base, especially in life sciences and global health research, boosted by public and private R&D investment in this and other fields.
- A culture of entrepreneurial creativity and investment, as well as natural amenities and a high quality of life, that has helped to draw some of the world's best talent to the state.

To fuel this success Washington has relied on talented workers trained in other states and nations. Going forward, we know it will be difficult to sustain this strategy. We face growing international competition for talent. All nations and U.S. states are now focused on producing, attracting, and retaining skilled workers. They understand that a skilled workforce is the key to economic innovation and a high-wage economy.

In Washington, as in many other states, our challenge is compounded by a trend that is likely to have greater negative consequences for Washington than many other competing nations. Our most educated workers are nearing retirement, and the generation coming up behind them has lower educational achievement and fewer skills than the group that is retiring.

In most other countries and many U.S. states, the reverse is true and younger adults are more educated than their elders. This inter-generational problem occurs, in part, because some of the groups in Washington's population that are growing the fastest are those that have historically had some of the lowest levels of educational success (including low college participation rates). Put these trends together, and we are faced with the likelihood of a future Washington workforce with lower levels of skills and education than the current workforce.

To meet this challenge, it is essential that Washington's higher education system be expanded. Expansion must be focused on areas of highest economic need – commonly termed "high-demand occupations." This investment needs to occur at a time in which we are under incredible fiscal constraints, but focused higher education investment is essential for growing our way out of the economic downturn.



Degree production targets

The work group sought to determine Washington's economic need for skilled workers by education level, and then determine the number of degrees needed to satisfy that economic need.

This has led to the following recommendations:

- > Ten-year system goals should be developed based on a combination of externally benchmarked aspirational goals and the best available economic analysis of the gap between current supply and future demand by education level.
- The economic analysis undertaken for the work group indicates we are very far from where we need to be by 2018 to meet projected future demand. Even with the high level of uncertainty around our point estimates, the range estimates we examined are far above current degree production levels, so it is important we keep pushing forward to expand the system.
- > The analysis shows that the mid-level and graduate/professional degree supply-demand gaps are close to the Strategic Master Plan degree production targets and should not be changed.

➤ The economic analysis undertaken for the workgroup indicates that the HECB should consider lowering the 2018 baccalaureate degree production target from 42,400 to approximately 39,000. Based on this analysis, the committee recommends that the HECB reduce modestly the Strategic Master Plan target for baccalaureate degrees.

Looking forward, it is not possible to predict economic demand with much accuracy. Nevertheless, whatever method is used or what the precise size of the gap between current supply and future demand may be, the 2018 demand level appears to be so much higher than current production that it makes sense to continue increasing degree production at all three education levels (mid-level, baccalaureate, and graduate/professional).

High-demand occupations

Washington's higher education institutions have helped provide our state with its skilled workforce, but certain sectors of our economy face significant or acute shortages of qualified workers. Enrollment growth should emphasize improving the student pipeline and expanding capacity in programs that lead to occupations where shortages exist. We should focus on occupations that support employment and local economic development, or contribute to the innovation capacity of the economy.

At the baccalaureate level and above, the high demand occupations are the STEM and health sciences disciplines. At the mid-level, they are construction, auto mechanics, transportation, installation/maintenance/repair; health care, early childhood education, accounting tech/bookkeeping, aircraft mechanics, science technology and STEM transfer.

These high demand occupations may change based on changes in the supply and demand for workers. It is important that institutions, especially community and technical colleges, be able to identify other high demand programs based on local employer demand and industry cluster strategies.

A review of preliminary data on high demand occupations and employer demand for degrees and certificates indicate that in some areas like engineering and computer science, the gaps appear to have grown since 2006. In almost all occupational clusters, supply was maintained or grew over the last two years, but projected future demand grew at a faster rate, especially in the areas where gaps have widened.

Although there is no gap for educators overall, there are gaps for certain types of educators, including early childhood education at the mid-level, and math and science teachers at the higher levels. These shortages will be compounded by the newly revised high school math requirements and the proposed changes to the high school science requirements. Because the education pipeline is such a critical issue, it is essential that students have access to these courses. Addressing these teacher shortages must be a high priority.

With regard to high demand occupations, the work group recommends:

- > Sustaining and enhancing Washington's investment in high demand programs and increasing the number of interested and prepared students in the pipeline. The pipeline is especially important in engineering and computer science, where it is a critical constraint on degree production.
- ▶ Focusing new degree production capacity on high demand occupations. In the near term, most of our new higher education capacity should be focused on high demand occupations. New investment is also needed to improve the pipeline of students prepared to enter high demand programs (see recommendations of the HECB Policy and Demographics Work Group).
- > Expanding early childhood education and math and science teacher programs. This not only will address gaps in high demand educational fields, it also will accomplish a strategic objective by preparing more students for college work in other high demand fields.

Improving capacity to analyze economic need and improve program planning

This exercise has shown the value of adding economic analysis to the HECB's suite of planning considerations. It is important that higher education institutions also consider economic need when proposing expansion or rebalancing of their educational programs.

It is critical that state agencies and Washington's higher education institutions make informed resource decisions based on an improved capacity to analyze labor market information and employer demand. Improved analysis should be used to update system goals, institutional targets, and track system results.

Specifically, the work group recommends:

- > Using the inter-agency "Joint Report," A Skilled and Educated Workforce, as the structural focal point of our efforts to regularly analyze employer demand, update goals and targets, and assess results.
- Augmenting the "Joint Report" process with the establishment of a technical advisory committee to advise on methodology and data sources, and a mechanism to consult with employers to validate analysis results.
- Agencies should develop plans on how to incorporate the analysis results into program plans and accountability systems. In addition, agencies and institutions should use the results to guide resource allocation decisions.

Concluding observations

As a state, we are facing an enormous challenge, and the potential consequences are very high. Our economic success has led us to rely heavily on our ability to attract talent to the state. Talent is and will continue to be the preeminent defining characteristic of an innovative, high wage economy. We must improve and expand our capacity to develop that talent, based on a strategy of educating all our citizens for the jobs we currently have and want to keep, and the jobs we hope to have in the future.

Policy and Demographics Work Group

In the past, higher education served those who applied and enrolled in our colleges. Today, simply responding to those who apply is not enough – not enough to produce the people with the skills our industries need, and not enough to equitably serve the changing population of our state.

Today, the fastest-growing groups of K-12 students are students from under-represented racial and ethnic groups and immigrants. These also are among the groups with the lowest average incomes in the state. And today, the adult population includes more than a million young adult workers who lack basic education and job skills, workers who struggle to make ends meet and to provide for their children. This adult population is the legacy of a chronic high school dropout rate of close to 30%, and the result of growing immigration.

High school students from low-income families, students from under-represented ethnic and racial groups, and younger adult workers who lack basic education and higher-level job skills are all less likely to complete college programs when they do enroll. This is the fundamental reality that must change if our economy is to grow and our state is to prosper. As the wave of baby boomer retirements crests, Washington employers will face growing shortages of skilled workers, managers and leaders. We do not have any people to squander.

That's why the Policy and Demographics Work Group focused on three critical areas:

- 1. Understanding the demographics of the under-educated;
- 2. Examining what policies and practices help them enter and succeed in post-secondary education; and
- 3. Creating a coherent set of recommendations that can reverse the trends that continue to leave so many behind.

This work focuses on *what Washington's higher education system can do* to improve education, job, and life outcomes for the groups of young people and adults who are currently least likely to participate and succeed in higher education.

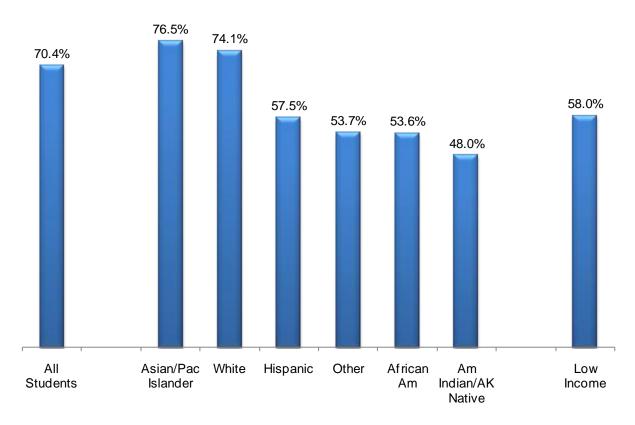
Demographic focus areas

There is no mystery about who is under-represented in post-secondary education:

- Low income youth and adults of all races;
- African-American, Native-American, Latino youth and adults, and specific sub-groups of Asian/Pacific Islander youth and adults.

These under-represented groups are less likely to graduate from high school, less likely to enroll in college programs, and less likely to complete programs when they do enroll. Population forecasting indicates the number of students with lower graduation and direct-to-college enrollment rates will become a greater percentage of the high school population as we approach 2018 and throughout the following decade as well.

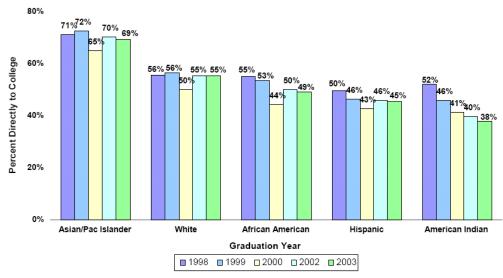
On-Time High School Graduation Rates Washington's Class of 2006



Source: Washington Office of the Superintendent of Public Instruction.

A 2006 Diversity in Washington Higher Education Report, published by the Higher Education Coordinating Board, found that direct-to-college enrollment among African-American, Latino and Native American high school graduates actually declined between 1998 and 2003. See chart on next page.





Source: WSU SESRC. Washington State Graduate Follow-up Study (various years)

This trend is reflected over a longer term in the generational comparison between baby boomers and younger adult workers in these groups:

% Associate Degree or Higher Among Older and Younger Age Cohorts

	Ages 25-34	Ages 45-54
African American	24%	32%
Asian/Pac Is	62%	43%
Hispanic	18%	23%
White	44%	42%
Other	32%	32%

Moreover, the proportion of children of color in our state's population is growing significantly. The younger the population we examine, the greater the proportion of under-represented people we find. For example, in Benton County, the population of individuals under five years of age is 80 percent Latino.

The combination of declining educational attainment and growth in the numbers of underrepresented groups spells impending crisis for Washington. And the problem we face is not just that we are failing to make progress with these groups of students. The problem is that we are sliding steadily backward. This is the trend we must reverse – quickly – if we are to achieve and sustain prosperity for our state.

What works

Recruiting and retaining K-12 students

The experiences of many programs in Washington and around the country provide a rich source of information about what really helps persuade low-income students and students of color to enroll in college, and what helps them succeed once they get there.

For students from under-represented groups – even more than traditional college students – learning requires relationships of trust, a sense of belonging to a learning community, and ongoing support and encouragement.

There are many programs that provide these attributes and from them it is possible to derive a clear set of principles for success:

- Early outreach These programs often based on partnerships between K-12 schools and colleges are most effective when they begin in elementary school and involve families in consistent and ongoing activities that raise expectations and help children focus on preparing for their future.
- Early promise scholarships The promise of scholarships for low-income middle school students has proved effective in other states, and is being replicated in Washington with the new College Bound Scholarship program.
- Academic and career planning courses Middle and high school courses that build students' knowledge and skill in navigating the education system to reach their personal goals increase students' likelihood of taking rigorous high school classes and enrolling in college.
- Mentoring Role models, mentors, and long-term personal relationships with caring adults are key to student success. College students have been shown to be effective mentors.
- **Highly qualified teachers** Teacher quality and teacher cultural competence make a significant, measurable difference in student success.
- Culturally relevant college preparation Many students need help to "walk in two worlds" the world of their family's culture, and the world of academic aspiration and college enrollment. Culture-specific college prep programs help bridge these worlds.
- **Dual enrollment programs -** The ability to earn college credit at little or no cost while still in high school provides confidence, a connection to higher education and significant savings. Dual-enrollment programs are valuable both to those who aspire to a four-year or graduate degree, and those who are aiming for vocational skills or apprenticeship programs.

- **Debt-avoidance strategies -** Low income families and students fear student debt, so financial aid and incentive programs that help students avoid it are effective.
- A college-going culture When all students are expected to graduate from high school and go directly to some form of college or career preparation program, they are likely to rise to this expectation.
- **Pre-enrollment orientation and transition** Early opportunities to visit college campuses and interact with college students and faculty help low-income, first-generation college-goers understand and prepare for the academic rigor and the culture of college.
- Intensive, ongoing support for first-generation students Colleges that offer ample mentoring, tutoring and social support to low income students and students of color especially during their freshman year show increases in student retention and success.

Helping working adults

Working adults – especially those stuck in low-wage, dead-end jobs – face many barriers to enrolling or returning to college. Competing demands of family and work, transportation, child care and cost all play a role in cutting people off from educational opportunity. Language barriers, undiagnosed learning disabilities and past academic frustrations also discourage people from pursuing new skills and knowledge.

The following principles focus on what our state's higher education system can do to reach out to adults:

- Flexible schedules and convenient class locations Evening and weekend classes, access to libraries, advising, and year-round enrollment services in convenient locations make learning more accessible. Taking learning off college campuses also reduces the intimidation factor for some learners.
- Child care Students with children need this service when and where their classes are held.
- Integrated basic education and skills training Combining academic and vocational skills and English language instruction shortens the time needed to earn a skills certificate, and increases students chances for persistence and program completion.
- Certificate programs that articulate with more advanced degrees Many students need to learn skills quickly to support their families. Short-term skills certificate programs fill these needs. But they are most useful when there is a pathway beyond the skill certificate, so that students can return to upgrade their skills and earn degrees.
- **Financial aid for part time students -** Federal financial aid is unavailable to part-time students, but most working adults can only attend part time.

- **Employer partnerships -** Classes that connect directly to workplace opportunities, offered at the work site, can help both students and their employers thrive.
- **Student advising and support** People who lack experience navigating higher education get lost in the system; they need more help to map their route to achieving their goals, and more tutoring and mentoring.
- Online and hybrid courses, and online advising and support The ability to take courses "anytime, anywhere" frees working adults from the barriers of transportation, child care and work schedule conflicts. Easy to use online advising, planning and registration tools are also helpful.
- Early intervention Data systems that identify early signs that a student is struggling, coupled with tutoring and advising services, can help steer students back on course for success.
- Outreach to former students When students leave before completing a program, they can often be persuaded to return. When colleges take the initiative to contact them, doors that closed can open again.
- Credit for prior learning Adult students often come with knowledge and skills learned in the workplace. Systems that allow these students to gain credits by passing tests, or creating portfolios that demonstrate their competence, can both encourage and accelerate their degree or certificate completion.

Policy recommendations

In a perfect world, our policy recommendation would be simple: Bring all of the programs and strategies that work to scale immediately, and weave them together to create a web of support and success for under-represented students of all ages. But in today's world, that is not an option. Instead, we recommend strategic choices in three stages:

- > Support for effective current efforts;
- Limited, strategic new initiatives that build on these efforts; and
- An agenda for future work.

These recommendations are designed to support four goals that will improve educational attainment for under-represented groups:

- 1. Create a college-going culture for all children and youth.
- 2. Build the K-12 pipeline.
- 3. Build the re-entry pipeline for adult workers.
- 4. Improve persistence and degree or certificate completion.

Build the K-12 pipeline

Provide continuing support for successful programs

We should continue to support the following effective programs:

- Early outreach programs such as GEAR-UP.
- The state's new College Bound Scholarship, which promises financial aid to students in middle school.
- Dual-enrollment in classes that award both high school and college credit.
- Navigation 101 courses that teach students how to set goals and navigate the education system.
- Dropout prevention efforts underway in the Building Bridges Program.

Integrated College Access Network – I-CAN

To increase college-going rates among under-served K-12 students, we propose to create an Integrated College Access Network – I-CAN.

This network will build on successful early outreach, early scholarship, career planning courses, dual enrollment programs, and dropout prevention work already in place. I-CAN will draw these programs together into a coordinated effort, and augment them with a new mentoring program that draws from the ranks of successful college students.

College student mentors will be trained in leadership, community outreach and strategies for working with diverse students. These students can be deployed as aides in Navigation 101 courses, as tutors and as college-enrollment guides. Students who serve as mentors will receive class credit for doing so, and this program can be linked with teacher preparation coursework. Chambers of Commerce may want to partner in this effort, as they have a strong "Leadership Tomorrow" curriculum to bring to the table.

Recent college graduates – eventually including those who have benefited from this program – could also be recruited to serve as mentors and college guides.

Other key components of I-CAN:

- Very early outreach to children and their families, including opening GET accounts for all children when they enroll in public schools. GET units might be deposited in these accounts by the state as students meet academic benchmarks. Families could also be encouraged to save for college by making it possible to buy GET units in smaller increments.
- Aggressive marketing of the state's new College Bound Scholarship, which offers a
 promise of financial aid to seventh graders when they graduate from high school. This
 marketing would link this scholarship with other college access programs.

- Guaranteed financial aid for low-income high school students for enrollment in dualcredit programs while they are in high school. While most of these programs do not charge tuition, the costs of books, fees, and transportation present barriers for low-income families.
- Incorporation of coursework and internships for prospective teachers and school counselors that build skills for helping students from under-represented groups plan for their futures, raise their expectations, and successfully navigate the education system to help them achieve their dreams.
- An overarching, sustained statewide marketing campaign to build a college-going culture for all families. Messages matter and sustained marketing has the power to change public opinion. Such a campaign can create universal understanding of the need for all students to engage in some form of post-secondary education, and raise the expectations of under-represented students to this level. This will require research on how to reach and persuade students and families from diverse cultures, as well as all those who work in public education. A campaign ambitious enough to be effective will require strong partnerships with private sector employers and community organizations across the state.

Future work

- More research is needed to clearly identify gaps in services that help under-represented groups of students. There is also a need for a unique P-20 student identifier that would allow better measurement of both individual and system progress in raising educational attainment.
- There is also potential for further expansion of dual credit programs that encourage students of color and students from low-income families to enroll in post-secondary education.

Build the re-entry pipeline

Continuing support for successful programs

Three recent initiatives have proved very effective in helping working adults learn new skills and move up a career ladder:

- Opportunity Grants that provide financial aid and support services for people entering workforce training programs.
- Bachelor of Applied Sciences degrees that build on workforce training as well as academic coursework and are offered in some community and technical colleges.
- Integrated basic education and skills training (I-BEST) programs that combine academic, English language, and job skills instruction and thereby shorten the time it takes for students to complete programs and get better jobs.

Navigation 102

Working adults who have never taken college classes or who have not done so in many years need help to get started or re-started. To help them do so, we propose to create a free, online and on-campus college and career planning course designed by teams of faculty and advisors from multiple colleges. The course will help prospective students inventory their own skills, interests and aptitudes.

Navigation 102 will provide a virtual tour of what is available in Washington's higher education system and help connect prospective students with programs that match their personal goals. This course will also provide information about what job and career opportunities exist in their communities and focus on areas where there are skill shortages. It also will offer personalized advising on how to apply, get financial aid, and enroll.

These activities will lead to the establishment of a personal relationship between the student and the college in which they find the program they need, and a clear academic and career plan.

By pooling enrollments for the online version of this course through Washington Online, the course could have multiple start dates, independent of regular college schedules, so that prospective students could enroll year-round.

This course will also come with a bonus: those who complete it will be eligible to take another class tuition-free at any participating college or university, either in person or online.

Future work

In years to come, we should develop a system for awarding college credit for prior learning and identify specific strategies to re-enroll those who earned associate degrees in baccalaureate programs, and those who earned some college credit but never completed a degree.

Improving persistence and completion

Continuing support for successful programs

Students are more likely to persist and complete their education when they are well prepared, have sufficient financial resources and benefit from meaningful personal support from faculty and staff.

Thus, it's no surprise that what's working is the State Need Grant, special funding for student support services, programs like I-BEST that accelerate program completion, and programs like the Transition Math Project that ensure students begin college well-prepared.

Expand the State Work Study Program

To provide more students with financial assistance and experiential learning in high demand fields, we propose to expand State Work Study funding and dedicate these new funds to high demand, science, technology, engineering and math (STEM) fields and mentoring for K-12 students. Employers will work with colleges, universities and the HECB to develop these opportunities.

Future work

- To continue to improve persistence and degree or certificate completion, we need to extend
 successful initiatives to encourage enrollment in STEM and other high demand fields, and
 identify which programs are most successful for under-represented students. This could
 include exploration of specific funding incentives or demonstration grants for the production
 of degrees in high demand fields, and for meeting other goals of the Strategic Master Plan for
 Higher Education.
- We also need to explore funding incentives to institutions such as the SBCTC Student Achievement Initiative.
- To increase the use of technology as a means of making learning available anytime, anywhere, we should also convene a task force to address technology and e-learning, perhaps using the SBCTC Strategic Technology Plan as a model.

Enrollment and Capacity Analysis Study

The 2007-09 Appropriations Act provided funding to the Higher Education Coordinating Board (HECB) to study the state's capital facility and technology capacity and "... compare the 10-year enrollment projections with the capital facility requirements and technology application and hardware capacity needed to deliver higher education programs for the period 2009-2019."

The charge was to estimate the capacity of institutional space and the effect of technology on enrollments and space needs. HECB staff worked with the public, four-year institutions, the community and technical college system, the Independent Colleges of Washington and MGT of America, Inc., (a national management consulting company) to address this proviso.

Project Approach

The project approach included the following activities:

- Determining the institutional capacity by using national guidelines applied to institutional space inventories.
- Determining the programmatic capacities and limitations for each of the institutions.
- Identifying the effect of technology and eLearning on institutional capacity.
- Identifying the cost impacts (operating and capital) of the enrollment and capacity plans.
- Reporting conclusions.

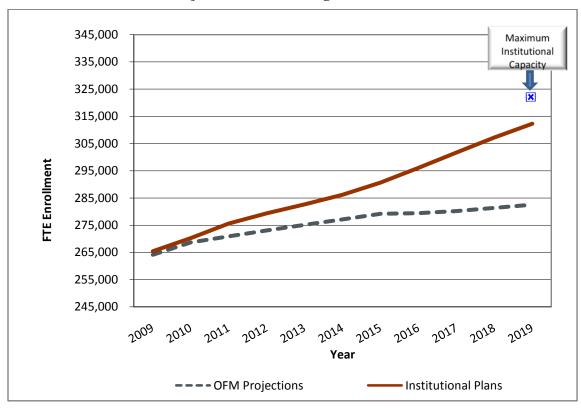
Key Findings and Recommendations

Enrollment

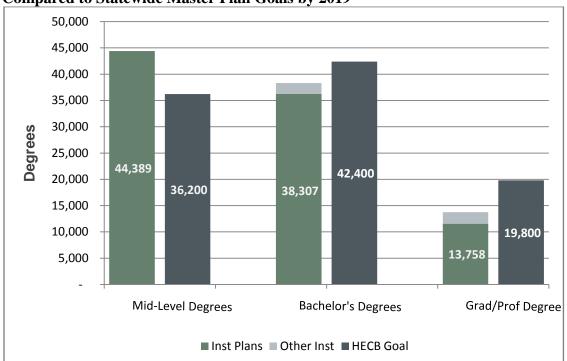
The overall potential enrollment growth estimated by all sectors of higher education in Washington amounts to an increase of 46,898 by 2019 – assuming operating funds are available and institutional capital budgets are funded. (The 2008 Strategic Master Plan called for an increase of 61,500 FTEs.)

- The four-year public institutions could add 23,723 student FTEs.
- The community and technical college system could accommodate 20,093 student FTE
- Independent Colleges of Washington enrollment is projected to increase by 3,082 FTE.

OFM Projections to Total Higher Education Enrollment



Institutional Degree Plans for all Washington Higher Education Compared to Statewide Master Plan Goals by 2019



Degrees

Institutional growth plans could produce an additional 25,600 degrees for a total of 92,200 by 2019. This would be a 38 percent increase over current degree production.

44,389	mid-level degrees
36,357	bachelor's degrees
11,558	graduate/professional degrees

Capital needs

Additional degree production and new enrollments to meet public, four-year institutional plans and support HECB goals can be supported within the projects identified in the institutions' 10-year capital plans. Major capital "growth" projects include the branch campuses build out and the Western waterfront expansion.

The community and technical college degree and enrollment growth plan can be supported by the SBCTC's existing capital plan.

Recommendation: Preservation of existing facilities for both the two- and four-year institutions, including the replacement, renovation and renewal of facilities to meet instructional suitability needs, is a higher priority than creating new enrollment capacity, with the exceptions of the branch campuses and Western's waterfront project.

eLearning growth

eLearning is using the unique affordances of digital technologies to support and transform learning in flexible, anytime/anywhere learning spaces. eLearning includes technologies that support learning for everyone, not just students separated by distance. The three major categories of eLearning are:

- 1. **Online.** Conducted completely on the Web.
- 2. **Hybrid.** Replace some but not all classroom time with online learning.
- 3. **Web-enhanced.** Meet in regular class sessions but use online resources for additional student-to-teacher and student-to-student interaction, posting of assignments, and course materials.

The total estimated incremental online and hybrid growth in community and technical colleges exceeds the total growth of all CTC enrollments through 2018-2019. Even though online instruction will be major delivery system employed by the CTC system, on-campus enrollment at several colleges will continue to grow and require capital growth projects.

Under the institutional plans, online instruction, which does not involve the use of scheduled classrooms and labs on campus, will be provided primarily by the community and technical colleges and by WSU, CWU, and EWU. With the exception of limited, self- supporting programs at the UW, no other public four-year institution plans to mount extensive eLearning programs. However all institutions will use technology in a 'hybrid' fashion to augment and elaborate in-class instruction.

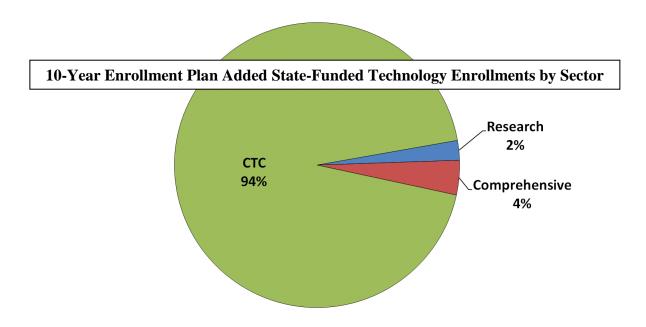
Other institutions provide online instruction but only through self-sustaining programs. As an ever increasing number of students utilize eLearning for programs at the two-year level, there will likely be extensive demand for similar public offerings at the four-year upper division and graduate levels. Enrollment accommodated solely through online instruction could be nearly an additional 25,500 FTE by 2019.

Recommendation: The HECB should take steps that ensure that the planning and coordination for online instruction occurs in all higher education sectors and levels.

Operating and capital costs

The operating cost associated with the institution's enrollment increase and enrollment plans is calculated to be \$634.4 million over five biennia. The costs for the first two biennia are estimated to be \$101.6 million and \$95.5 million, respectively. Shifting the 2009-2011 enrollment increases to the next biennium would increase costs by 5.6 percent per biennium or a total five biennia cost increase of \$35.5 million.

The capital costs, derived from the institutions' capital plans for the next four biennia are estimated to be \$4.8 billion. Of that amount, 65 percent is associated with preservation projects and 35 percent is related to growth projections.



Policy conclusions

- While current economic circumstances will certainly affect the ability of the state to significantly increase enrollment funding in the next (2009-11) biennium, a longer-term, systemic challenge impacting the ability to reach the Board's degree goals by 2018 exists. Simply stated, it is likely that even the most successful efforts to increase "pipeline" demand will not result in the achievement of the Master Plan's degree goals by 2018. A longer horizon for meeting those important goals seems necessary.
- Efforts to address the enrollment pipeline issues need to be given the highest priority. If Washington is to be truly competitive in the global economy, it needs to increase degree production, particularly in the science and technology areas. This effort requires motivated students, well rounded in the basics of math, science and comprehension. Because of the central need to implement the master plan strategies, the legislature should consider delaying the requirement for a new or updated master plan to allow the HECB and its staff to focus on the implementation of the current master plan.
- eLearning efforts, and particularly online instruction, must be carefully planned and coordinated to ensure students can take advantage of this "anytime/anywhere" approach to attaining bachelors and higher degrees. There is a substantial disparity between the plans of the community and the technical colleges and the public four-year institutions. A planning and coordinating framework needs to be established by the HECB to ensure that eLearning opportunities are available and that a seamless transition from two year to upper-division level programming occurs.

IV. Aligning Resources to Raise Educational Attainment

A. Expand on Demand

To achieve this growth in both enrollment and degree production called for in the Strategic Master Plan, the HECB recommends a 10-year implementation process built on a key new principle: *Expand on Demand*.

Strategic plans of the past have focused primarily on expansion in the baccalaureate sector. In 1987, the master plan proposed the construction of upper-division branch campuses located in major urban areas of the state. This focus on expanding capacity was justified by the demographic trends of the time: sustained growth of the college-age population combined with rising demand for a better-educated workforce.

The *Expand on Demand* concept would direct a 10-year effort to:

- Focus first on increasing demand for post-secondary degrees and certificates. This would be accomplished by improving participation and completion rates among under-represented groups and in under-served regions. New initiatives will be required to address:
 - Affordability
 - Accessibility
 - Aspirations
- Target current resources on modernization and modest growth, particularly to expand costeffective baccalaureate delivery modes to underserved regions.
- Fund new technology and new capital as necessary (and later in the decade) to meet demonstrated demand. Make these investments based on a new statewide policy framework to be developed as described below.

B. Redesign the Delivery System

Educational programs in Washington are delivered through a rich mix of institutions and partnerships. Washington is fortunate to have with one of the best community and technical college systems in the nation, two premier research universities and four strong baccalaureate institutions. However, there are regional disparities in access to baccalaureate degree programs, and the long-term needs of the state for expanded degree production exceed the capacity of the state's public and independent institutions.

Over the next 10 years, the state must expand its capacity to produce more mid-level degrees, more baccalaureate degrees and more advanced degrees, especially in high demand fields. The process for determining when and where to build new campuses must be established now so that new investments in the state's higher education system will be wisely and effectively deployed.

The state has not undertaken a comprehensive statewide review of its delivery system needs in several decades. Regional studies have documented local needs, but no broader effort has been made to determine how investment in one region complements or impacts existing institutions.

The importance of developing a more focused and strategic plan for system growth is apparent when institutional role differentiation is viewed. Washington's public higher education system is an 'hour glass,' with the majority of students enrolled in the research universities and in the community and technical colleges. The smallest enrollment sector (15 percent of all students) is in the state's comprehensive (regional) universities and at The Evergreen State College.

This means that Washington relies heavily on research universities to deliver undergraduate education. This matters for the future because on average research universities are more expensive to operate and attend than are the baccalaureate and master's level institutions.

To make targeted and cost-effective investments to expand the higher education delivery system, the HECB recommends we undertake a joint effort over the next year to develop a comprehensive statewide policy framework for:

- 1. Establishing the overall characteristics of the state's higher education enterprise and its various components; and
- 2. Authorizing mission changes in existing institutions; and for indicating when, where, and how expansion of higher education institutions should occur.

The study would be undertaken by a joint task force composed of representatives of the HECB, the SBCTC and the COP. Topics to be addressed would include:

- History and structure of the current post-secondary education system
- Identification of the strengths and weaknesses of the current delivery system
- Options for expanding baccalaureate and graduate education programs
- Options for expanding mid-level degrees, apprenticeships and certificates
- Options for greater use of technology to aid in program delivery
- Review of any new land use and transportation imperatives that would inform future education investments (climate change initiatives).

Timing

The Joint Study would commence immediately (fall 2008) and report recommendations back to the HECB in fall 2009.

Recommendation

Approve Resolution 08-30 authorizing the Executive Director of the HECB to work with the State Board for Community and Technical Colleges and the Council of Presidents to identify their respective members of the task force, to specify the scope of work to be accomplished by the task force, to develop a meeting schedule, and to identify key staff expertise to assist the task force.

V. Creating a 10-Year Action Plan: Areas of Focus & Emphasis

2009-11	State policy initiatives and funding to prepare, attract and retain under-represented groups and working adults	Maintaining existing investments in degree production and academic quality Limited and targeted enrollment growth • Safety-Net Enrollment (CTC) • STEM Baccalaureate Enrollment	Re-examine system configuration and institutional mission differentiation
2011-13	On-going funding for preparing, attracting, and retaining under-represented groups and working adults	Maintain investments in degree production and academic quality Limited enrollment growth rate	Distribute enrollment growth per system configuration study
2013-15	Expand investments in degree production and academic quality Increase enrollment growth rate	Continue funding and monitor impact of efforts to enroll under-represented groups and working adults	Increase system capacity per system configuration study, indentified needs, and enrollment/demand trends.
2015-17	Expand investments in degree production and academic quality Stabilize enrollment growth rate	Increase system capacity per anticipated/projected demand, and system configuration policy.	Continue/adjust efforts to enroll under- represented groups and working adults
2017-19	Sustain investment level in degree production and academic quality Stabilize enrollment growth rate	Reassess long-term enrollment demand and trends.	Revise long-term growth and resource requirements plan